REMARKS

Claims 1, 3, 5, and 10 have been amended to merely clarify the invention. No new matter is introduced by the amendments of these claims. Claims 1-11 remain pending.

The Examiner has indicated that claims 3 and 4 would be allowable if amended to overcome the 35 U.S.C. §112, 2nd paragraph, rejection. The Examiner has rejected claims 1 and 3 under 35 U.S.C. §112, second paragraph, as being indefinite for failing to point out and distinctly claim the subject matter which applicant regards as the invention. With respect to claim 1, the Examiner states that the limitation "and the mapping" needs to be further defined. With respect to claim 3, the Examiner states that the limitation "within the received communication" needs to be further defined. The claims have been amended herein to comply with the requirements of 35 U.S.C. §112. It is respectfully submitted that claims 3 and 4 are patentable.

The Examiner has also rejected claims 1, 3, 4, 5-8, 10, and 11 on the ground of non-statutory obviousness-type double patenting as being unpatentable over claims 1, 17, 20, 22, 24, 27, 28, and 41 of U.S. Patent No. 6,693,878. A terminal disclaimer has been filed herewith to overcome this rejection.

The Examiner rejected claims 1 and 2 under 35 U.S.C. §103(a) as being unpatentable over Fijolek et al. (US patent 6,510,162) in view of Casey (US patent 6,493,349). Additionally, claims 5 and 6 are rejected under 35 U.S.C. §103(a) as being unpatentable over Fijolek et al. in view of Rosen et al. ("BGP/MPLS VPN's" 1999) and Casey. Claims 7-9 are rejected under 35 U.S.C. §103(a) as being unpatentable over Fijolek et al. in view of Rosen and Casey and further in view of Gilbrech (US patent 6,173,399). Claims 10 and 11 are rejected under 35 U.S.C. §103(a) as being unpatentable over Fijolek et al. in view of Casey and Rosen. The Examiner's rejections are respectfully traversed as follows.

Claim 1 is directed towards an "apparatus for routing packets from a first network node to a second network node in a data network." Claim 1 also recites "means for assigning and then sending a first node identifier (ID) to the first node, wherein the first node ID uniquely identifies the first node" and "means for mapping the assigned first node ID with at least one VPN, wherein the first node ID is assigned, sent, and mapped by an entity other than the first node." Claim 1 also requires "means for receiving a packet from the first node, said packet including the first node ID, and including routing information for routing said packet to a destination address associated with said second node" and "means for examining the packet to identify the first node ID of the first node." Claim 1 further requires "means for using said first node ID, routing information, and the mapping between the first node ID and the at least one VPN to determine

whether said first node is associated with at least one VPN." Claim 5 recites "means for if it is determined that said first node is a member of at least one VPN, assigning and then sending an identifier (ID) to the first node and binding the ID of said first node with said VPN to thereby cause said first node to be associated with said VPN, wherein the ID is assigned, sent, and then bound by an entity other than the first node, wherein the ID uniquely identifies the first node." Claim 10 recites "means for assigning and then sending to the first node an identifier (ID), wherein the ID is assigned and sent to the first node by an entity other than the first node, wherein the ID uniquely identifies the first node" and "means for associating the assigned ID with the first VPN to thereby cause the first node to be associated with the first VPN, wherein the assigned ID is associated by the entity other than the first node."

Embodiments of the present invention include mechanisms for assigning a unique ID to a node and then sending such ID to the node, wherein the ID is assigned and sent by an entity other than the node. This assigned and sent ID is also mapped or associated with one or more VPN's by such other entity or device. Thus, when a packet having the assigned ID is received by such other device from the node that received such ID, this other device may determine whether the node belongs to a particular VPN based on the returned, unique ID and mapping or associating of such ID. Accordingly, the node does not have to utilize a VPN label or implement any kind of VPN protocol in order to take advantage of a VPN arrangement since an intermediary device can determine the VPN of the node based on the assigned ID and mapping of such ID to a particular VPN.

The Examiner admits that the primary reference fails to disclose "means for mapping the assigned ID with at least one VPN, wherein the ID is assigned, sent and mapped by an entity other than the first node." The Examiner cites the secondary reference Casey for teaching this feature. It is respectfully submitted that Casey is directed towards utilizing a standard VPN protocol to determine the VPN of a particular node. Although Casey teaches providing a VPN ID for a node, it is submitted that Casey fails to teach mechanisms for assigning a unique ID to a particular node that is mapped or associated with one or more VPN's, in the manner claimed. In contrast, Casey discloses that "VPN identifier assigned to the first router is the same as the VPN identifier assigned to the second router." See Col. 2, Lines 16-19 (Emphasis added). Accordingly, Casey fails to teach or suggest mapping or binding an ID, that uniquely identifies the first node and *was assigned and sent by an entity other than the first node*, to a specific VPN, in the manner claimed. The secondary reference Casey also necessarily fails to teach or suggest the use of such mapping by such other entity, in the manner claimed. The secondary references Gilbrech and Rosen also fail teach or suggest such limitations.

The Examiner's rejections of the dependent claims are also respectfully traversed. However, to expedite prosecution, all of these claims will not be argued separately. Claims 2, 6-9, and 11 each depend directly or indirectly from independent claims 1, 5, or 10 and, therefore, are respectfully submitted to be patentable over cited art for at least the reasons set forth above with respect to claims 1, 5, or 10. Further, the dependent claims require additional elements that when considered in context of the claimed inventions further patentably distinguish the invention from the cited art.

Applicant believes that all pending claims are allowable and respectfully requests a Notice of Allowance for this application from the Examiner. If the Examiner believes that a telephone conference would expedite the prosecution of this application, the undersigned can be reached at the telephone number listed at the bottom of this page.

Respectfully submitted,
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